

**Notice of Allowability**

Application No.

09/893,153

Examiner

Tri H. Phan

Applicant(s)

SMITH ET AL.

Art Unit

2661

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 5/12/2005 and the communications on 8/18/2005 and 8/19/2005.
2. ☒ The allowed claim(s) is/are 2, 4-7, 9-11, and 13 (Now renumbered as 1-9).
3. ☒ The drawings filed on 26 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 8/19/2005.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**BRIAN NGUYEN**  
PRIMARY EXAMINER

8/19/05

## DETAILED ACTION

### *Response to Amendment/Arguments*

1. This Office Action is in response to the Response/Amendment filed on May 12<sup>th</sup>, 2005. Claims 2, 4-7, 9-11, and 13 are now pending in the application.

### EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney **John P. Wagner, Jr.** (Reg# 35,398) on August 18<sup>th</sup>, 2005; and Attorney **Joel Young** (Reg# 52,389) on August 19<sup>th</sup>, 2005.

The application has been amended as follows:

#### IN THE CLAIM:

The following change to the claims 2, 4-5, 7, 9, and 13 have been approved by the examiner and agreed upon by applicant:

For claim 2, add an end period ( . ) at the end of claim 2 (line 6), right after the term "wireless device".

Replace the claim 4 as follows:

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4. (Currently Amended) A method of determining the position of a wireless device using a wireless network having a plurality of receiver/correlators, each receiver/correlator being positioned at a fixed location in the wireless network, the method comprising:

- receiving a position request from the wireless device at a first receiver/correlator and recording a receive time;

- receiving the same position request from the wireless device at a second receiver/correlator and recording a receive time;

- synchronizing all the receiver/correlators in the plurality of receiver/correlators such that an internal clock in each receiver/correlator is synchronized and syntonized to indicate a same time information, and wherein said synchronizing comprises:

- transmitting a first synchronization packet from the first receiver/correlator to the second receiver/correlator, the first synchronization packet having a first transmit time at which the packet was transmitted from the first/correlator;

- receiving the first synchronization packet at the second receiver/correlator and recording the receive time of the first synchronization packet;

- comparing the first transmit time of the first synchronization packet with the receive time of the first synchronization packet recorded at the second receiver/correlator;

- synchronizing an internal clock in the second receiver/correlator using a difference between the first transmit time and the receive time of the first synchronization packet, the known locations of the first and second receiver/correlators and a known propagation delay between the first and second receiver/correlators;

- using the receive time of the position request recorded at the first receiver/correlator, the receive time of the position request recorded at the second receiver/correlator, and the fixed locations of each receiver/correlator to determine the position of the wireless device; and

- transmitting a position information packet back to the wireless device indicating the global position of the wireless device.

For claim 5, line 4, substitute the word “the” right after the word “detecting” to -- a --.

For claim 7, substitute the word “the” right in front of the term “central server” (line 6) to -- a --; and substitute the word “the” right in front of the term “packet based” (line 8) to -- a --.

For claim 9, line 6, substitute the phrase “is further for” right after the term “receiver/correlators” to -- performs a method for generating packets; comprising: --.

For claim 9, line 13, substitute the word “routing” right in front of the word “comprising” to -- routine --.

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For claim 9, line 18, delete the word “the” right in front of the term “known speed”.

Replace the claim 13 as follows:

13. (Currently Amended) A packet based communications system for receiving a position request from a wireless device and transmitting position information back to the wireless device, the packet based communications system comprising:

a receiver/correlator for transmitting a timing packet to a central server, wherein the timing packet having a header which identifies the packet as a timing packet, a field for identifying the receiver/correlator from which it was transmitted, a field identifying timing information which includes a  $\Delta t$  time at which the position request packet was received at the receiver/correlator, and a field identifying the corresponding position request packet;

the wireless device for transmitting the position request packet to the receiver/correlator, wherein the position request packet includes a header having a known bit pattern which identifies the packet as the position request packet, and a field for identifying the wireless device from which it was transmitted; and

the central server for transmitting a position information packet to the wireless device, wherein the position information packet includes a header which identifies the packet as the position information packet, a field for identifying the central server from which it was transmitted, an information field identifying the wireless device for which it is intended, and a field identifying the position of the wireless device, as determined by the central server.

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

**Any response to this action should be mailed to:**

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**Commissioner of Patents and Trademarks**

Washington, D.C. 20231

**or faxed to:**

**(571) 273-8300**

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan  
August 19, 2005



**BRIAN NGUYEN**  
**PRIMARY EXAMINER**